

What is claimed is:

1. A vacuum chamber assembly which constitutes a part of a device such as a sputtering device, comprising at least a floor plate, an upper plate, a plurality of props standing on said floor plate to support said upper plate, and side plates for closing side opening portions between said props, characterized by that:

first connected portions between said floor plate and said props and second connected portions between said upper plate and said props are fixed by screw fixing means;

side surfaces of said floor plate, said props and said upper plate which constitutes circumferential edge portions of said side opening portions are provided with installation grooves respectively;

a gasket which is unitedly constituted of side surface sealing portions which is installed in said installation grooves formed on said circumferential edge portions of said side opening portions respectively, and connection sealing portions for sealing said first connected portions and said second connected portions is provided; and

said side plates are fixed to said circumferential edge portions so as to close said side opening portions via said side surface sealing portions of said gasket respectively.

2. A vacuum chamber assembly according to claim 1, wherein projections projecting along borderlines of said first connected portions and said second connected portions are formed respectively, and sealing grooves for engaging said projections are formed in said connection sealing portions of said gasket

respectively.

3. A vacuum chamber assembly according to claim 2, wherein said installation grooves are provided with housing spaces for housing top portions of said gasket which are deformed by said side plates' pressing are formed along side lines thereof, respectively.

4. A vacuum chamber assembly according to claim 3, wherein said housing spaces are formed along one of both side lines of the installation grooves.

5. A vacuum chamber assembly according to claim 4, wherein said first connected portions and said second connected portions have housing grooves for said connection sealing portions of said gasket which are formed in an arc shape along said first and second connected portions, and said projections are formed so as to project into the housing grooves.

6. A vacuum chamber assembly according to claim 5, wherein said housing grooves are formed in a size such as to be able to house top portions of said connection sealing portions of said gasket which are deformed by the side plates' pressing.

7. A vacuum chamber assembly according to claim 3, wherein said housing spaces are formed along both side lines of the installation grooves.

8. A vacuum chamber assembly according to claim 7, wherein said first

connected portions and said second connected portions have housing grooves for said connection sealing portions of said gasket which are formed in an arc shape along said first and second connected portions, and said projections are formed so as to project into the housing grooves.

5

9. A vacuum chamber assembly according to claim 8, wherein said housing grooves are formed in a size such as to be able to house top portions of said connection sealing portions of said gasket which are deformed by the side plates' pressing.

10

10. A vacuum chamber assembly according to claim 1, wherein said installation grooves are provided with housing spaces for housing top portions of said gasket which are deformed by said side plates' pressing are formed along side lines thereof, respectively.

15

11. A vacuum chamber assembly according to claim 10, wherein said housing spaces are formed along one of both side lines of the installation grooves.

20

12. A vacuum chamber assembly according to claim 11, wherein said first connected portions and said second connected portions have housing grooves for said connection sealing portions of said gasket which are formed in an arc shape along said first and second connected portions, and said projections are formed so as to project into the housing grooves.

25

13. A vacuum chamber assembly according to claim 12, wherein said

housing grooves are formed in a size such as to be able to house top portions of said connection sealing portions of said gasket which are deformed by the side plates' pressing.

5 14. A vacuum chamber assembly according to claim 10, wherein said housing spaces are formed along both side lines of the installation grooves.

15. A vacuum chamber assembly according to claim 14, wherein said first connected portions and said second connected portions have housing grooves
10 for said connection sealing portions of said gasket which are formed in an arc shape along said first and second connected portions, and said projections are formed so as to project into the housing grooves.

16. A vacuum chamber assembly according to claim 15, wherein said
15 housing grooves are formed in a size such as to be able to house top portions of said connection sealing portions of said gasket which are deformed by the side plates' pressing.

17. A vacuum chamber assembly according to claim 1, wherein said first
20 connected portions and said second connected portions have housing grooves for said connection sealing portions of said gasket which are formed in an arc shape along said first and second connected portions, and said projections are formed so as to project into the housing grooves.

25 18. A vacuum chamber assembly according to claim 17, wherein said housing grooves are formed in a size such as to be able to house top portions of

said connection sealing portions of said gasket which are deformed by the side plates' pressing.

19. A vacuum chamber assembly according to claim 3, wherein said first
5 connected portions and said second connected portions have housing grooves for said connection sealing portions of said gasket which are formed in an arc shape along said first and second connected portions, and said projections are formed so as to project into the housing grooves.

10 20. A vacuum chamber assembly according to claim 19, wherein said housing grooves are formed in a size such as to be able to house top portions of said connection sealing portions of said gasket which are deformed by the side plates' pressing.

15 21. A vacuum chamber assembly according to claim 2, wherein said first connected portions and said second connected portions have housing grooves for said connection sealing portions of said gasket which are formed in an arc shape along said first and second connected portions, and said projections are formed so as to project into the housing grooves.

20 22. A vacuum chamber assembly according to claim 21, wherein said housing grooves are formed in a size such as to be able to house top portions of said connection sealing portions of said gasket which are deformed by the side plates' pressing.

25 23. A vacuum chamber assembly according to claim 10, wherein said first

connected portions and said second connected portions have housing grooves for said connection sealing portions of said gasket which are formed in an arc shape along said first and second connected portions, and said projections are formed so as to project into the housing grooves.

5

24. A vacuum chamber assembly according to claim 23, wherein said housing grooves are formed in a size such as to be able to house top portions of said connection sealing portions of said gasket which are deformed by the side plates' pressing.

10

25. A vacuum chamber assembly according to claim 6, wherein the side plates have at least equipment for windows, equipment for piping for intake or discharge, equipment for wiring harness.

15

26. A vacuum chamber assembly according to claim 9, wherein the side plates have at least equipment for windows, equipment for piping for intake or discharge, equipment for wiring harness.